# FIRST ANNUAL REPORT

OF THE

# STATE BOARD OF HEALTH

OF

MINNESOTA.

JANUARY, 1873.

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PRINTED BY RESOLUTION OF THE LEGISLATURE.

SAINT PAUL:
PRESS PRINTING COMPANY.
1873.

RED WING, Minn., January 1st, 1873.

To His Excellency Horace Austin,
Governor of the State of Minnesota.

Sir: I have the honor herewith to transmit the first annual report of the State Board of Health and Vital Statistics.

Very respectfully,

Your obedient servant, CHARLES N. HEWITT, Secretary State Board of Health. Hon. WA

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STATE OF MINNESOTA, EXECUTIVE DEPARTMENT. St. Paul, January 16, 1873.

HON. WM. H. YALE,

President of the Senate.

Sin: I have the honor to transmit herewith, for the consideration of the Legislature, the first annual report of the State Board of Health, made pursuant to section 2 of an act entitled "an act to establish a State Board of Health," approved March 4th, 1872. The law contains no provision authorizing the printing of the report before its transmission to you, and I consequently send it in manuscript, as it comes to me. I trust you will authorize the printing of this report, and also make such provision relative to future reports of the Board as will enable them to be annually laid before your body in printed form, a shape which I think their value and importance as State papers will require.

Respectfully,

HORACE AUSTIN,

Governor.

Whereupon the following concurrent resolution was adopted: Resolved, By the Senate, the House concurring, that 1,000 copies of the Report of State Board of Health be ordered printed.

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# GENER

MEMBERS OF THE BOARD.

A. B. STUART, Winona, President.

D. W. HAND, St. Paul.

N. B. HILL, Minneapolis.

A. W. DANIELS, St. Peter.

V. SMITH, Duluth.

G. D. WINCH, Blue Earth City.

CHARLES N. HEWITT, Red Wing, Secretary.

To the Honorab Minnesota:

The following of Health:

Be it enacted to Section 1. Tone from the city sections of the South Health and Vitashall hold their coare appointed, and the Governor.

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They shall make ing the causes of of mortality and ditions and circun gather such infor may deem proper

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# GENERAL REPORT OF THE BOARD.

To the Honorable the Senate and House of Representatives of Minnesota:

The following is a copy of the act to establish a State Board of Health:

Be it enacted by the Legistature of the State of Minnesota:

Section 1. The Governor shall appoint seven physicians, one from the city of St. Paul and the other six from different sections of the State, who shall constitute the State Board of Health and Vital Statistics. The physicians so appointed shall hold their offices for four years, and until their successors are appointed, and all vacancies in the Board shall be filled by the Governor.

Sec. 2. The State Board of Health shall place themselves in communication with the local boards of health, the hospitals, asylums, and public institutions throughout the State, and shall take cognizance of the interests of health and life among the citizens generally.

They shall make sanitary investigations and inquiries respecting the causes of disease, especially of epidemics, the source of mortality and the effects of localities, employments, conditions and circumstances on the public health; and they shall gather such information in respect to these matters as they may deem proper for diffusion among the people.

They shall devise some scheme whereby medical and vital statistics of sanitary value may be obtained and act as an advisory Board to the State in all hygienic and medical matters, especially such as relate to the location, construction, sewerage, and administration of prisons, hospitals, asylums, and other public institutions.

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ing, Secretary.

They shall at each annual session of the Legislature make a report of their doings, investigations, and discoveries, with such suggestions as to legislative action as they may deem proper.

They shall also have charge of all matters pertaining to quarantine, and authority to enact and enforce such measures as may be necessary to the public health.

- SEC. 3. The board shall hold regular meetings, at least once every three months, one of which meetings shall be beld at the Capitol during the session of the Legislature. Their first meeting shall be held at the Capitol within ten days after their appointment shall have been made, and three members shall always constitute a quorum for business. They shall elect, from their own number, a president and permanent secretary; the latter shall be their executive officer. No member except the secretary shall receive any compensation, but the actual expenses of any and all the members while engaged in the duties of the Board shall be allowed and paid to the extent authorized by this act.
- SEC. 4. The secretary shall perform and superintend the work prescribed in this act and shall perform such other duties as the Board may require. He shall furnish to the Legislature when in session, such information cognate to this act as from time to time they may deem necessary.
- Sec. 5. The secretary of the Board shall receive from the treasury, in quarterly payments, an annual salary of two hundred dollars, and his necessary and actual traveling expenses incurred in the performance of official duties, after they have been audited by the Board and approved by the Governor, and all other necessary expenses arising in his office shall be paid out of the treasury in the same manner as those of the different departments of State Government; Provided, that the expenses of said Board shall not exceed the sum of five hundred dollars per annum.
- SEC. 6. This act shall take effect and be in force from and after its passage.

Approved March 4, 1872.

In accordance the D. W. Hand, of St. of Minneapolis; A. Hewitt, of Red Winmeeting. The Boar Dr. D. W. Hand may

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In accordance therewith the Governor commissioned Drs. D. W. Hand, of St. Paul; A. B. Stuart, of Winona; N. B. Hill, of Minneapolis; A. W. Daniels, of St. Peter, and Chas. N. Hewitt, of Red Wing, and instructed Dr. Hand to call the first meeting. The Board met in St. Paul, March 26th, 1872, and Dr. D. W. Hand made the following address:

### GENTLEMEN:-

I have called you here at the suggestion of the Governor of this State, he having honored us by appointment as members of the State Board of Health, under the law passed at the recent session of the Legislature. This meeting is called for the purpose of organization.

It has long been the desire of the best men in our profession to form some general plan for the utilizing of statistics, and the procuring of information pertaining to the public health. With this end in view, and with the further object of disseminating such information as could be obtained among the masses, the enlightened Legislature of Massachusetts five years ago passed an act establishing a State Board of Health. It was an experiment, and the first of the kind ever undertaken in this country; but the high character of the medical gentlemen selected for the board insured its success; and since that time their valuable annual reports have attested not only to the faithfulness of the members of the Board, but to the importance of having an organization of this kind.

In 1870 California, following the example of Massachusetts, established a Board of Health, and in the short time since its organization the gentlemen comprising that Board have accomplished a large amount of work, and by their intelligent advice have rendered important service to the State.

It remains now for us, the representatives of the third State, to adopt this wise plan of guarding the public health, to prove our fitness for the task imposed. To it we must bring not only the willingness to labor long and faithfully in acquiring information, but also to disseminate in every possible way the latest and best views of hygiene and of prophylactic medicine.

For several years past the registration of births, deaths and marriages in this State has been under the direction of Pennock Pusey, Esq., the late able Assistant Secretary of State, and he has collected a mass of statistics that will be of great service in enabling us to estimate the value of the present law on that subject. It has been found elsewhere that mortality reports can only be relied on when coming from medical sources, but the number of births and marriages can as well be obtained through the county records.

Through the facts obtained from the source above mentioned, and by encouraging the formation of local Boards of Health, which shall report monthly to the Secretary of this Board, it is hoped we may shortly be able better to understand the influences which so nearly concern the lives and health of the citizens of this broad State.

The necessity for the adoption of some general plan for preventing the spread of contagious diseases has been recently and urgently shown by the spread of small-pox in Carver County. The plainest dictates of common sense and decency were there ruthlessly violated, and mainly because there was no one in authority to advise the people.

Public attention should also be directed to the steady and sure undermining of the national health by the crime of abortion and other means of preventing the growth of families. The average number of children to each family in this State cannot readily be ascertained; yet, while it is believed to be considerably higher than in the older States, all of us have come to look with apprehension at the small number of children in the families of our acquaintance; and to be sensible of a great admiration for the families here and there where the patriarchal number of children is found. Such families we know are rare.

The reputation our State enjoys as a resort for invalids should be supported by an honest report as to the influence this climate has in restraining or developing tubucular disease, and attention a locality, &c., wh

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and attention should be given to the character of the soil, locality, &c., where this disease is known to originate.

While so many new buildings are being erected in all parts of the State, it is important that the public be instructed as to the best means of ventilating dwellings, public halls and school houses, as well as warned against the common results of overcrowding and want of a full supply of pure air.

Other subjects will present themselves, and if willing we shall soon find abundant material for work, and pressing opportunities for usefulness.

To perfect our organization we will now do well to elect a President and Secretary, the officers designated by the law under which we have been appointed.

After the address Dr. A. B. Stuart, of Winona, was elected President, and Dr. Charles N. Hewitt, of Red Wing, Permanent Secretary.

The next meeting was held at Red Wing June 26th, at which time Drs. Vespasian Smith, of Duluth, and G. D. Winch, of Blue Earth City, having received commissions from the Governor, joined the Board. Two other meetings have been held; one at Duluth September 11th, and the other at Minneapolis December 19th, 1872. The details of the proceedings, and the work done and planned for the future, will appear from the report and the papers appended thereto.

The Secretary's report gives in detail the operations of the Board and the account of expenditures.

The appropriation given the Board will not be sufficient to enable them to carry out the work contemplated in the act. We respectfully refer the Legislature to the special reports for evidence of what has been done and what it is proposed to do, and confidently look to them for such an increase of appropriation as in their wisdom the importance of our work demands.

The special reports herewith submitted have been carefully prepared by their authors at the request of the Board. They are:

IST. A REPORT ON THE CAUSES OF DISEASE, ESPECIALLY EPIDEMICS. BY A. B. STUART, M. D.

It is the preliminary report of the standing committee of the Board on that important subject, and discusses the influence of atmospheric changes, emanations from swamps, etc., arid miasm, climate, and other natural and artificial agencies, in causing or influencing the occurrence and progress of disease in Minnesota.

2D. THE SOURCES OF MORTALITY. BY D. W. HAND, M. D.

It treats of the causes, natural or artificial, which occasion our greatest mortality, and the means available to prevent or limit their operation on our population. (This is also the preliminary report of the standing committee of the Board on this subject.)

3D. THE STORY OF THE VITAL STATISTICS FOR 1871. BY THE SECRETARY.

Being an attempt to present in a form to be understood by the non-professional reader the facts of birth and death, as developed in the study of the registration returns of that year, and a comparison, in some respects, of the health status of Minnesota with that of Michigan and Massachusetts. The report defines the methods by which this Board hope (with the hearty co operation of medical men and intelligent citizens) to investigate the subject, and discuss means to diminish the sick rate and mortality of the State.

4TH. TAPE WORM—NATURAL HISTORY—MEANS OF PREVENTION—REMEDIES—PREVALENCE IN MINNESOTA. BY H. C. HAND, M. D.

This report, prepared after a careful study of the subject, and extensive correspondence with medical men and others throughout the State, is an interesting review of the history of this disgusting creature, and proves that its occurrence in Minnesota is more frequent than was supposed. The Board asked for the report, and present it as a valuable contribution to popular knowledge on the subject.

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the subject, and others the history currence in The Board contribution 5th. Remarks on spedalsked, (norwegian leprosy.) by Ch. Gronwald, M. D.

An important contribution to our knowledge of a very curious disease, furnished by one who is engaged in its study among his countrymen in America. The Board secured this report because it is known that the governments of Sweden and Norway have already sent, at different times, two scientific experts to this country to study the influence of residence, climate, etc., here, on the development and progress of the disease among the emigrants, and it was thought a matter of importance that all the facts and the results of their investigations should be obtained for this report to the Legislature. This disease is a subject of very strict legislation in Norway at the present time, as it once was in all Europe. The investigation will be continued by Dr. Gronwald, and the results will, by his courtesy, be available for the use of the Board.

6TH. THE DUTY OF THE STATE IN THE CARE AND CURE OF INEBRIATES. BY THE SECRETARY.

This paper is the result of a study of all available data on this subject, made by order of the Board. The number of confirmed drunkards in Minnesota who would voluntarily go or ought to be sent to an asylum for treatment is understated by the author. The number is increasing in the State every year, and the time is not far distant when the Legislature will be compelled to devise means for their care, as is done in other States, and even by cities, with a very encouraging success. The use of opium and other narcotics is on the increase among our population, though not to the same extent as alcohol. Though our people cannot agree as to laws for the limitation or prevention of the sale of these poisons, the sale of alcohol as a drink is made a direct source of revenue; and the duty is as plain as any which the State owes to its people to provide for the care of the victims.

7TH. REPORT ON LEGISLATION IN MINNESOTA RELATING TO PUBLIC HEALTH. BY D. W. HAND, M. D.

Gives a summary of legislation in this direction up to the organization of this Board.

8th. The report on the sanitary condition of the public institutions, being the result of the first inspection ordered by the board. By the secretary.

This report, though relating to little else than the construction, ventilation, warming, and drainage of the public institutions, proves the necessity and value of the work which (in the spirit of the law) the Board has undertaken.

The attention of the Legislature is called to the fact that most of the defects described are faults in the original construction of the buildings, which need not have occurred had the plans been submitted to medical men with reference to sanitary necessities.

The Board also beg leave to urge a liberal appropriation to the Insane Asylum, to enable it to provide adequate facilities for the care of the increasing numbers of that unfortunate class of our citizens. Such a charity as this ought to be taken out of the arena of politics, and studied and provided for on its merits alone. The same is true, though not to the same extent, of the Deaf-Mute and Blind Asylum. The new wing should be immediately completed, but so that the defects apparent in the present building may not be repeated. The condition of the State Prison calls for immediate attention, and, before doing anything more, it should be decided exactly what the prison is to be when completed, so that nothing may be done which will have to be undone to attain the object in view.

In conclusion, this Board would ask for their work the consideration and provision which a study of what has been accomplished and is proposed for the future indicates to be proper and necessary.

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ieir work the conwhat has been acindicates to be The science of Public Health, which the Board was created to study, and the practical conclusions of which affect every interest, public and private, in the State, rests for its success upon the careful *collection* and *collation* of the vital statistics of our population, and is therefore only possible under the patronage and direction of the Legislature.

# Respectfully submitted.

A. B. STUART,
D. W. HAND,
N. B. HILL,
A. W. DANIELS,
V. SMITH,
G. D. WINCH,
CHARLES N. HEWITT,
State Board of Health.

# SECRETARY'S REPORT

To the State Board of Health and Vital Statistics of Minnesota.

#### GENTLEMEN:-

I beg leave to submit my Report of the work done by the Board from the date of its organization, March 18th, 1872, to December 19th, 1872.

It affords you just grounds for satisfaction, that, under the circumstances, and in so short a time, so much has been done, and that you have been able to devise plans for the future, which will make your labors of the greatest value to the people of the State.

When, at the request of the American Medical Association and the State Medical Society, this Board was authorized by the Legislature, and appointed by the Governor, the idea of public health, as a science to be studied by a body of medical men under State authority and at public expense, for the practical benefit of the State and its inhabitants, was almost entirely new to the people at large, and even to the educated classes. As you are aware, doubt was freely expressed by intelligent citizens. Many thought our State not sufficiently advanced to justify such an attempt at the scientific study of our sanitary condition, and questioned whether the benefit to come of it, would repay the labor and expense which it involved.

What you have already done answers these questions, removes these doubts, and proves beyond cavil the wisdom and advantage of your organization. As reliable vital statistics are at the foundation of public health, your first step was to assist the Commissioner of Statistics in the collation of the returns of births, marriages and deaths for 1871.

For the lack of such as offer, the Registration Returnation as evidence of the character upon our people. With the missioner, these statistics him view, and his Report, not imperfect as are the returnation. I submit herewith story of the statistics for y

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At your request, the Reg nized its importance. The course of lectures on pu winter. By your order, to Secretary, and begin in Jan

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hese questions, will the wisdom le vital statistics rst step was to collation of the 71.

For the lack of such assistance as the Board was able to offer, the Registration Returns have not hitherto been of any practical value, as tests of the health of the population, and as evidence of the character and operation of disease causes upon our people. With the cordial co-operation of the Commissioner, these statistics have been studied with that object in view, and his Report, now in press, will demonstrate that, imperfect as are the returns for 1871, they are of very great value. I submit herewith a more popular statement of the story of the statistics for your transactions.

Recognizing the necessity for and value of systematic education in the principles and practice of public hygiene to our teachers and the pupils of our schools, your next effort was to secure for that study its proper place in the university, normal, high and common schools of the State.

At your request, the Regents of the University have recognized its importance. They called upon you to provide a course of lectures on public health at the university this winter. By your order, the lectures will be given by your Secretary, and begin in January.

The Superintendent of Public Instruction has issued a circular to the teachers of the State, with a letter from the Secretary of this Board; and has made public hygiene a subject of especial study in teachers' institutes.

In response to a letter written by your order, the Convention of County and City Superintendents of Schools appointed a committee of conference with this Board on this subject.

Local school boards have also been addressed, and in many places a renewed interest in the study is being generally awakened. The benefits to the rising generation from these efforts, in their behalf, will be great and lasting.

The inspection of the public institutions of the State, to discover their sanitary condition, ordered by you, has been facilitated by the order of the Governor, giving the Secretary access to, and every facility for the inspection of them. This work is nearly complete. The report will be ready for publication in your Transactions. This inspection has been cordially

welcomed by the authorities of the State institutions, its advantage and necessity recognized, and it will result in great good.

There has been prepared, to facilitate and systematize registration of births and deaths, a classified list of diseases for statistical purposes, and blanks for reports of disease prevalence and meteorological statement, with forms for returns of births and deaths, which will be furnished to health officers and physicians who are interested in the study to which they relate.

At your request, Senator Ramsey has secured certain of the registration reports, and reports of the health officer of the Privy Council of Great Britain, through our legation at London. The Secretary has also collected valuable reports of the Massachusetts State Board of Health, and of the Health Department of New York City, and of other States and cities. To these sources of information we are adding popular manuals on health and text books for schools. You are thus able intelligently to advise school boards in the selection of text books, and to assist those, who may be found desirous to study public health more thoroughly, in the selection of authorities for that purpose.

Such of the special investigations ordered by you as are sufficiently complete for publication, are herewith presented. They are Reports on-

- I. Tape Worm. Natural History. Means of prevention-Remedies and prevalence in Minnesota. By H. C. Hand, M. D.
- II. Spedalsked. Norwegian Leprosy, its History and Treatment, with Notes of its Existence in Minnesota, and the Influence of Residence and Climate. By Ch. Gronwald,
- III. Legislation in Minnesota heretofore in Relation to Public Health. By D. W. Hand, M. D.
- Causes of Disease, Especially Epidemics. By A. B. Stuart, M. D.

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- VII. Report of Secretary.
- VIII. The Duty the Secreta
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idemics. By A. B.

- V. \*The Influence of Localities, Employments, &c., on Public Health. By A. W. Daniels, M. D.
- VI. Sources of Mortality. By D. W. Hand, M. D.
- VII. Report of Inspection of Public Institutions. By the Secretary.
- VIII. The Duty of the State in the Care of Inebriates. By the Secretary.
- IX. The Story of the Vital Statistics for 1871. By the Secretary.
- X. Health of Towns, Compiled from Reports of Health Officers and others. By the Secretary.

#### LOCAL EFFORTS.

In response to a letter addressed by the Secretary of the Board, the City Council of Red Wing appointed a medical man health officer. Dr. W. W. Sweney has accepted the position and entered upon the discharge of his duties. A letter was also, by request, addressed to the City Council of Winona, calling attention to the lack of proper water supply and the defective and dangerous methods at present in use for disposing of animal and vegetable accumulations, and suggesting a thorough sanitary inspection of the city by the local Health Board.

A correspondence has also been had with the Secretary of the Soldiers' Orphans' Home with respect to the ventilation and warming of the new building secured by the State for their use.

A cordial relation has been established with the health officers of our principal cities.

The thanks of the board are due to the health officers of St. Paul and Minneapolis, Drs. Thos. R. Potts and Chas. Simpson, for mortality reports and metereological records.

The Secretary begs leave to call attention to the letter of Prof. C. H. Chandler, Chemist of the Health Department of

<sup>\*</sup>The committee in charge have been unable to complete this paper in time for publication in the present report.

New York, concerning sanitary relations of gas works in towns.

The future work of the Board is indicated by what has already been done.

1st. To use every effort to make the registration of births, marriages and deaths accurate and reliable.

2d. To encourage, steadily, the study of the science and art of public health in the university, colleges and schools.

3d. To continue the careful inspection of the public institutions with the object of improving their sanitary condition, and to enable the Board to act intelligently as the advisor of the State in this regard.

4th. To carry out fully the study of the sanitary condition of our centres of population, and to stimulate local boards of health to the performance of this important part of their duties.

The special questions suggested by our work, and which demand immediate and careful study, are,

- 1st. (a) The number of sufferers from all forms of scrofulous diseases who come to Minnesota for prevention and cure, their condition on coming here, and the effect of climate, etc., upon the disease.
- (b) The operations of scrofula as a disease cause on our resident population.
- 2d. The etiology and history of zymotic disease in the State, especially typhoid and eruptive fevers.
- 3d. The influence of climate, residence and occupation in inducing or aggravating non-specific disease of the air passages.

Your plans for the future involve much labor. The work of the Board is so much of it in the office and library, that little else than the *results* of it come under direct popular observation. It is quiet, persistent research into the causes of sickness and mortality influencing our population, to discover and apply the means whereby their life and health may be preserved and prolonged.

The probability of epidemics throughout the country dur-

ing the coming year vigilance. Let us ho tion and support wi labors of those who public health.

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ing the coming year, is an additional stimulus to increased vigilance. Let us hope that legislative and popular co-operation and support will lighten the burthen and facilitate the labors of those whose duty it is to guard the interests of public health.

Herewith is submitted the account of the expenses of the Board, and an estimate of the necessary outlay to complete the year, on the rigid system of economy with which you set out. It will be seen that the expenditure has been confined to what was unavoidable, and that your work has been limited and embarrassed by your inability, on that account, to carry out the spirit and intent of the law.

Respectfully submitted.

CHARLES N. HEWITT,

Secretary.

### EXPENSES OF THE STATE BOARD OF HEALTH.

Paper and printing, -	-	_		_	\$52	00
Postage and express,		-	_		16	00
Stationery, etc.,	-	-		-	24	80
English, Registration, and other	report	s,	-		9	65
John Willey & Son, for books,	-	-		-	16	00
Expenses incurred in preparation	of Re	eport c	n Ta	ape		
Worm,	-	_		_	11	65
Clerk hire in Secretary's office, -		-	-		10	00
Secretary's travelling expenses,	-	-		-	25	30
Secretary's salary, to Dec. 19th, 1	1872,	-	- ,		150	00
Total outlay from March 19th	to Dec	e. 19th,	187	2,	<b>\$</b> 315	40
Estimates for remainder of year, (	to Mar	rch 19t	h, 18	73.)	)	
Secretary's salary, (one quarte	r,)	-	<b>\$</b> 50	00		
Travelling expenses of membe	rs, -	•	120	00		
Other expenses, (incidental,)	-	-	14	60	184	60
					<b>\$</b> 500	00

tar or similar compound. The use of dry earth in them constantly should be insisted on. A box of dry garden earth and a little cup are simple and inexpensive, but very efficient means, to secure their disinfection and cleanliness:

List of Diseases (not properly attributable to their previous habits) occurring among the prisoners at Stillwater in the years named.

Disease.	1867.	1868.	1870.
Tonsillitis	9	10	••
Pneumonia	11	7	6
Typhoid pneumonia	6	5	• •
Pleurisy	• •	• •	4
Diarrhœa	35	28	37
Dysentery	13	11	9
Cholera morbus	9	17	
Intermittent fever	27	14	23
Billious fever	11	13	13
Pernicious fever	5	6	3
Remittent fever	• •	9	• •
Typhoid fever		5	19

Note.—By reference to the reports of the Prison for past years, we find attention called to the necessity for increased provision for sick and well then.

# THE STATE REFORM SCHOOL, ST. PAUL.

There is no system of drainage here. The cess-pool is 40 feet to the rear of the building, and is connected with it by an open drain, opening into (and on a level with the floor of) the laundry.

No arrangement exists for ventilation under the basement floors. The laundry, boys' wash-room, etc., are on this floor, and the cistern is underneath it, at about the centre of the building. Where so much damp and wet is unavoidable, the absence of ventilation is indicated by a musty, mouldy smell, which was very noticeable in the rooms referred to, and in the hall between them.

The pump for drinking purposes is in the furnace-room; the well is what is known as a drive-well, and the waste water from it (at the time of inspection) was allowed to escape on the ground, near and around the furnaces.

The water works throughout the building, we were informed, are a failure, and have not been in operation for more than a year; consequently the bath-room and water-closets are useless, and the boys bathe in tubs in the laundry.

The boys sleep in one room in the 3d story, 48x56 feet, and 14 feet high. The beds are too close together, and any classification of the boys, (very essential in such an institution as this,) is impossible. The urinal in this room is against the wall, having no screen or protection about it; and in using it the boys must slush it with water from a pail near by.

The ventilation of this room is fair, but in the adjoining bath room and clothes closet the air was found close and stiffling. The privy at the Superintendent's house is an ordinary two-story structure of common construction and in ordinary repair. The one used by the boys is over 200 feet from the building, and backed by the hog-pen. It was very offensive when inspected, not properly constructed or in decent repair.

The hospital was in fair condition. The sick are properly cared for.

The girl's department is in a house not built for or adapted to its use. It is too crowded for comfort or for health.

Our conclusions here are :--

1st. That a thorough ventilation should be established under the pavement floors, and that the cistern should be closed over and connected with a chimney in constant use, by a flue, to ensure the change and escape of the air in it. There should also be a thorough drainage around and under the building. If in no other way, it may be done into a round cess-pool, at least 100 feet from the building, into which all the sewerage from the house should discharge by one drain. That drain should be connected with a chimney flue and be trapped, and have sufficient descent to secure the perfect delivery of its contents into the cess-pool. Farther, it ought to be so arranged that it may be slushed with clean water when necessary.

2d. The water works should be put and kept in complete repair.

3d. The privies require complete reconstruction.

4th. The building is too crowded, and another is required. In constructing the new one every attention should be paid to ventilating, heating and securing abundant light. The administration should be separated from the sleeping and school rooms.

# THE STATE HOSPITAL FOR THE INSANE, ST. PETER.

The occupied wing of the permanent hospital is nearly complete in every essential respect. It is desirable that the upper window sashes should be movable. They are not so now. The ventilation, especially in summer, would be greatly facilitated by so simple a change as this. The capacity of the building is about 100. It now contains 115 patients, 20 more than can be properly provided for. The new wing will be ready for occupancy early in the year, and will provide for 100 more, so that next year 200 patients can be properly provided for in the new buildings. The ventilation and drainage are exceptionally good, and when completed, with such changes as experience has dictated, the institution will be a credit to the State.

But it is not done, nor is it likely to be for years to come. Even if the State furnish the money, the erection must be slow, and two years must elapse before the new buildings will be sufficient for the demand on them.

The temporary hospital in the city of St. Peter, will therefore be, for some time, a necessity. At present it contains 132 patients (100 females and 32 males.) These are cared for in three separate buildings—an old hotel, a frame building erected some years ago (these in one block,) and a stone building across the street from the others. The frame building is the only one at all adapted to the purposes for which it is used. In this building are facilities for the accommodation of 35 patients and the necessary attendants, but it contains 50 patients and five attendants. The ventilation is passable. There is no drainage, and the outhouses are wretched. The condition of the patients here, though, is luxurious as compared with that

of those in the other buildings. The main part of the old hotel is of stone, the rear of wood. The halls are narrow, the ceilings low, the rooms small, and the floors, doors and windows in a dilapidated condition. This building contains 22 sleeping rooms, in which are 64 beds for 58 patients and eight attendants. There is one patients' day room 13x43 feet, lighted by three windows at one end.

Of the sleeping rooms—

10 average 10x10 feet in size, and have one window and two beds in each.

- 3 do. 10x12 do. do. three do.
- 3 do. 12x22 do. and have six beds in each.
- 1 is 10x15 do. and has four beds.
- 1 do. 12x16 do. do. five do.

The ventilation is very imperfect; cleanliness is nearly impossible; the drainage is nothing, and the out-houses very bad. The third building (across the street) is of stone, and two stories high. It is in a dilapidated condition, and contains four rooms:

- 1 patients' day and dining-room, 15x22 feet.
- 1 dormitory, containing 10 beds.
- 1 " 20x20 feet, with 9 beds.
- 1 attendants' room, store-room, etc., 12x14 feet.

There is no kitchen or bath-room. The food of the patients is brought from the frame building, across the street, three times daily, and they go over there for their weekly wash. The ventilation fair; drainage nothing; and out-house of ordinary construction, and in ordinary condition.

Your committee are compelled to declare the temporary hospital for the insane a disgrace to the State. Nothing but the watchful care of the medical officers, under so unfavorable circumstances, has prevented a fearful rate of sickness and mortality,—the legitimate consequence of such wretched provisions for the insane poor of the State. No where else, except in the crowded tenement houses of our great cities are the same number of people crowded into so limited space. When we remember that of the 158 in the temporary hospital, 132 are sick and crazy, too, presenting every form of

mania, from raving delirium to paralytic idiocy, the duty is plain to call upon the Legislature for immediate and thorough reform.

The temporary hospital must be given up as soon as possible, for the following simple reasons:

1st. It is utterly unfit for its present use, and can only be made partially so, at all, and that at great expense.

2d. The expenses of the Asylum are greater than is necessary, because of the increased administrative force necessary to carry on two establishments. The next fact to be taken into account is that there are at least 350 insane in the State needing hospital treatment for care or for cure. Of these, 240 are in hospital now.

Using the buildings of the temporary hospital fit for use, and the completed wing of the permanent building, the Asylum cannot now provide properly for more than 150. When the new wing is complete, it can accommodate 250—200 in the permanent hospital, and 50 in the temporary establishment.

We have thus left 100 insane not provided for another year. Our conclusions are, then:

1st. The permanent hospital should be enlarged, to provide for 350 patients. To do that will take at least a year.

- 2d. As soon as possible the temporary hospital should be abandoned. This can be done for all the buildings, except the office and frame building, as soon as the new wing (now nearly complete) is finished.
- 3d. Hereafter it is better to *crowd* the new than the old buildings, as ventilation, warming, etc., are better there, and the evil effect will be less.

Your committee cannot conclude the report of the inspection of the Insane Asylum without putting on the record, as a part of that report, the fact that insanity is on the increase in the State, and that it is the dictate of humanity, justice and economy for the State, that the Asylum should be enlarged to an extent that will amply provide for all who need its care.

The only hope of cure, in a large proportion of cases, is in

prompt and suitable treatment in a hospital, adapted, in every respect, to the purpose.

#### THE STATE NORMAL SCHOOL AT MANKATO.

This building is incomplete, the ventilation is imperfect, because the ventilating shafts have not been carried above the level of the roof.

Complaint is made of the difficulty of getting sufficient heat, but the furnaces are capable of making all the rooms comfortable if the ventilating shafts worked properly.

The halls, recitation rooms, etc., were found in good condition.

The out-houses, one for each sex, stand near together, without fence or other protection. They are of very ordinary construction, and not in a cleanly condition.

Your committee had the pleasure of hearing a recitation in physiology, and express their satisfaction with the efforts of the teacher, Miss Andrews, to make the study not only interesting, but practical.

Conclusions.—1st. The building should be completed. The system of ventilation in use at the Insane Asylum might be adopted here at little expense. If the system already begun is carried out, the shafts should be high enough above the roof to escape the current created by its inequalities, and should have movable hoods.

2d. The out-houses need reconstruction, and should be fenced, so as to make unobserved access to them easy.

#### STATE NORMAL SCHOOL AT WINONA.

The ventilation of the building is very good, and its general condition and repair better than any other visited by your committee.

The privies are in the basement, and are so connected with the main ventilating shaft that a constant current of air from the outside flows through them. Just below the seats is a rack so contrived as to detain most of the solid excreta, and to permit the fluids to pass through into the earth beneath the CARLES OF THE PARTY OF THE PART

building. It is found, in practice, that the draft of air is not so constant and powerful but that the odor from the vaults, carried into the ventilating shafts, escapes, at times, through the ventilators, into two or three recitation rooms, and that it does so despite assiduous efforts (by liberal use of disinfectants and all possible cleanliness) to prevent. This defect calls for immediate remedy. The present system is faulty.

- 1st. In permitting any excreta (fluid or solid) to escape into the earth under an occupied building.
- 2d. In not so thoroughly drying the excreta as to prevent all odor from them, and in not carrying off such as it does not prevent into the external air, without the possibility of infecting the air of recitation or other rooms.

The remedy is easy in many ways:

- 1st. The privies can be removed outside the building, and constructed on the dry earth or other system.
- 2d. The dry earth system can be used in them where they are.
- 3d. They can be made water closets by using the rainwater from the roof, stored in the cistern (now disused) in the garret.
- In either case, there should be erected a separate ventilating shaft, or put a partition in the present main ventilating shaft, so as to separate the ventilation of these vaults from that of the building. The particular method is a subject for the decision of the local board.

It is to be hoped that an appropriation will be made to enable them to remove this grave defect in a building which, in other respects, is very complete in all its arrangements.

The new wrought-iron furnaces are very carefully constructed, and are reported as working well and economically.

After a thorough inspection of this building, we have to report that we found evidence everywhere of assiduous care, which deserves mention and is worthy of imitation.

# THE SOLDIERS' ORPHANS' HOME, WINONA.

Your Secretary has been in correspondence with the local board of this institution since it was decided to rent a new building for its use, and his suggestions have received respectful attention.

Much credit is due to Captain Gould, the secretary of the board in charge of this charity, for untiring and intelligent zeal in bringing the work to so successful a conclusion.

The orphans have just removed into the new building. Your committee believe it will be found well adapted to their care so long as they remain the wards of the State.

# THE DEAF-MUTE AND BLIND ASYLUM, FARIBAULT.

We found the drainage of the unoccupied wing of the building good.

For some reason the ventilation is not perfect, and is affected by the direction of the wind. The floors of the building are of soft pine, and painted. The paint is worn off, and the boards so much worn that the floors are very difficult to clean, and in constant need of repair.

The dormitories in the upper story are too much crowded: the beds are very near together, and two children occupy each single bed. The wash sinks in the dormitories are of pine, not lined, and are constantly saturated with moisture. The water closets (only used at night) are in fair condition. The ventilation of the dormitories is not sufficient.

The furnaces are in good repair and warm the building satisfactorily.

The bath rooms are not large enough, or properly lighted or ventilated.

Most of these unfortunate children are of scrofulous habit, and very few in robust health. Their infirmities preclude much of the exercise possible to other children. There is, therefore, all the more need for abundant room, the best of food, perfect ventilation, sun-light and warmth.

The conclusions are :-

1st. It is absolutely essential, not only that the other wing,

nearly complete, be finished, but the central part also. The first, that crowding of sleeping or other rooms may be avoided, and the proper classification of the children be possible. The second, that the administration of the institute may be separated entirely from the sleeping, living, study and other rooms occupied by the pupils. At present the odors of the kitchen penetrate every part of the house.

2d. The outlet of the main sewer ought to be so protected from the wind as to prevent a draft into the sewer.

3d. The ventilation of the building would be much improved by putting movable hoods on the top of the shafts.

4th. Before proceeding to build the new wing a careful study ought to be made of the present one in every respect, that all defects may be removed in the one and avoided in the other.

#### GENERAL REMARKS.

It will be noticed that most of the defects which your committee have found in the public buildings of the State are due to faults of original construction, and that to remedy many of them *now* will involve a much greater outlay (with a much less perfect result) than would have been necessary had these matters been attended to at the proper time.

It would be a gain to the State in money, time and health, if all plans of public buildings hereafter to be constructed were submitted to the State Board of Health with reference to their provisions for sanitary necessities, and that copies of the plans be left in their office for future reference.

The duty of inspecting the public institutions is a very important one. To fulfil the design of the law it should be made frequently, and include not only the construction of buildings, but everything in the administration of the State institutions which affects, for evil or for good, the health of the inmates. The present inspection has been cordially welcomed by the authorities, and every facility has been afforded that your committee asked for, to obtain the information sought.